

FIG. 1

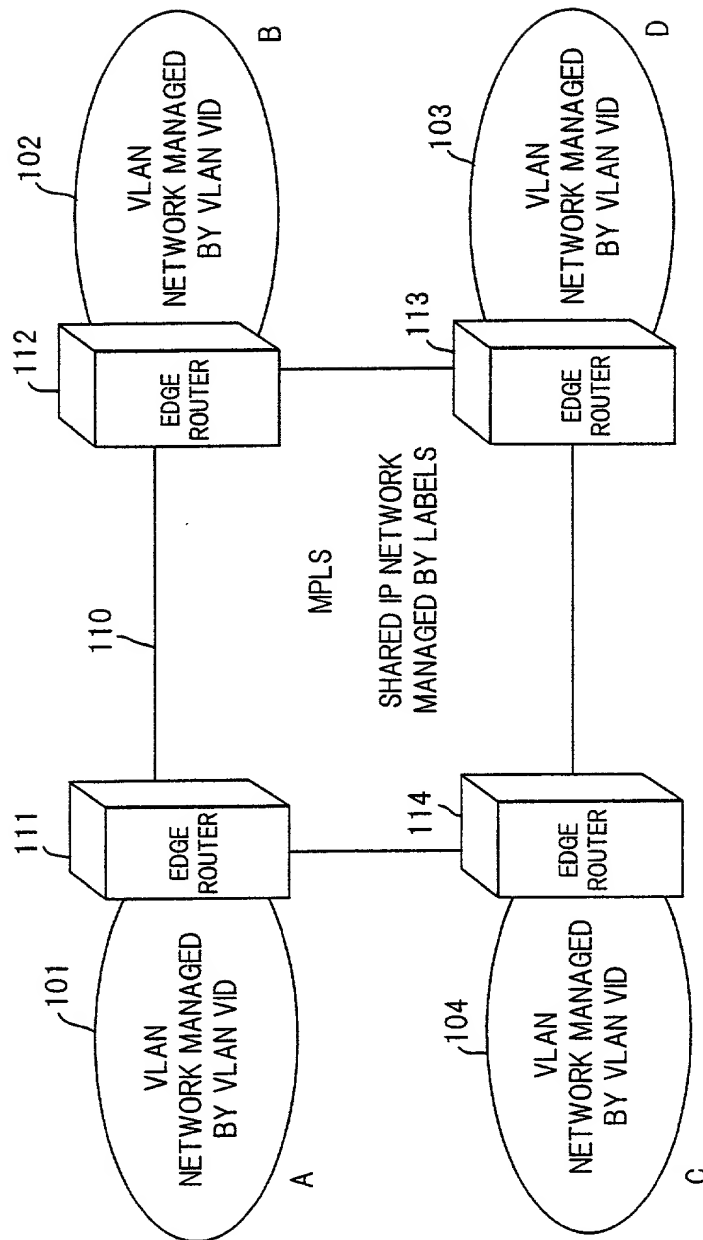


FIG. 2

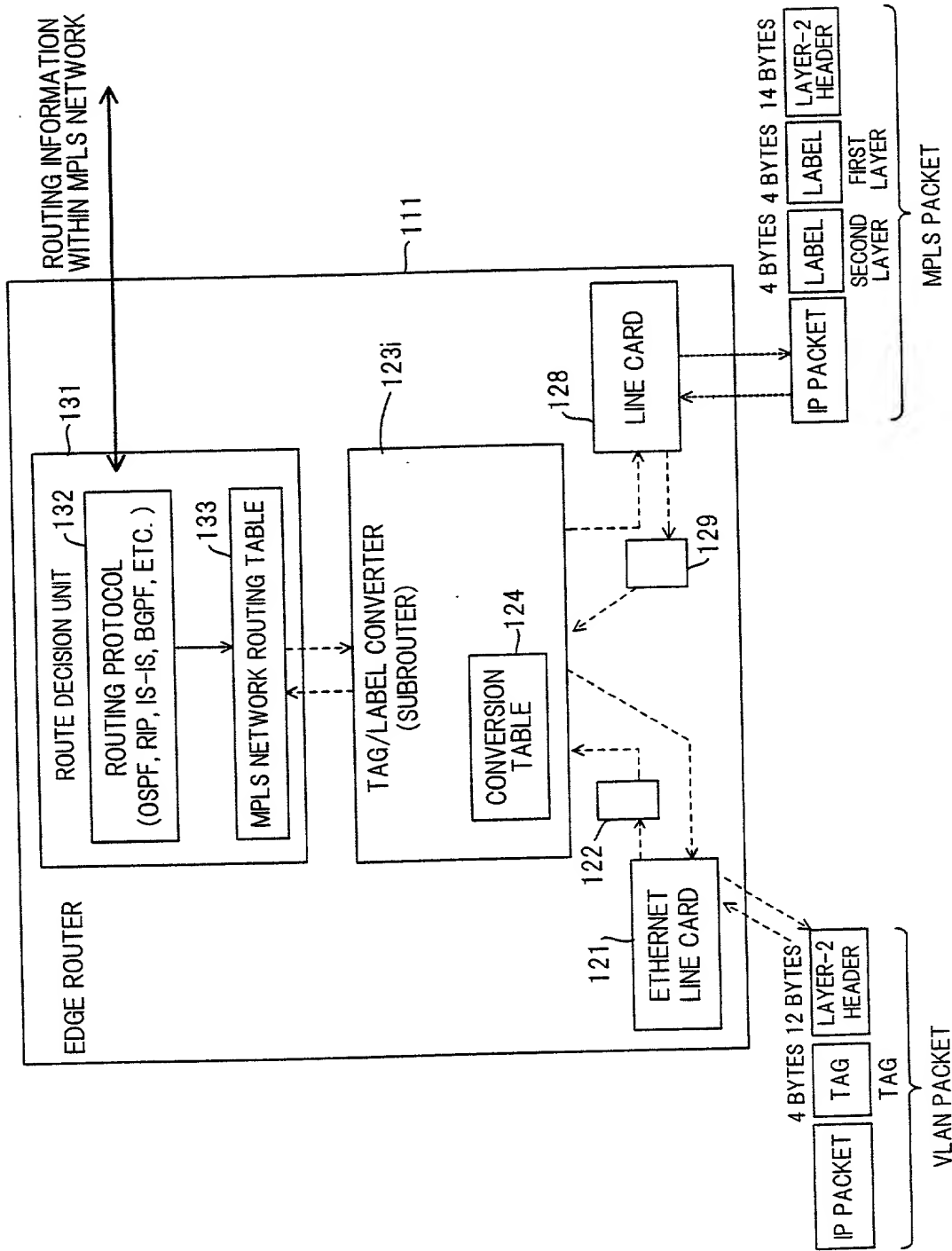


FIG. 3

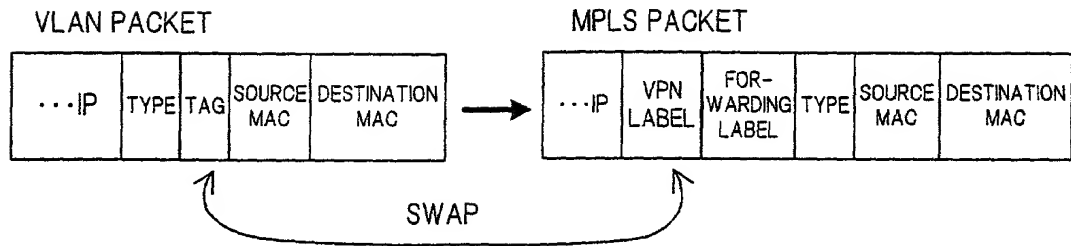


FIG. 4

VLAN ID(VID)	VPN LABEL
N	M
N+1	M+1
.	.
.	.
.	.
N'	M'

FIG. 5

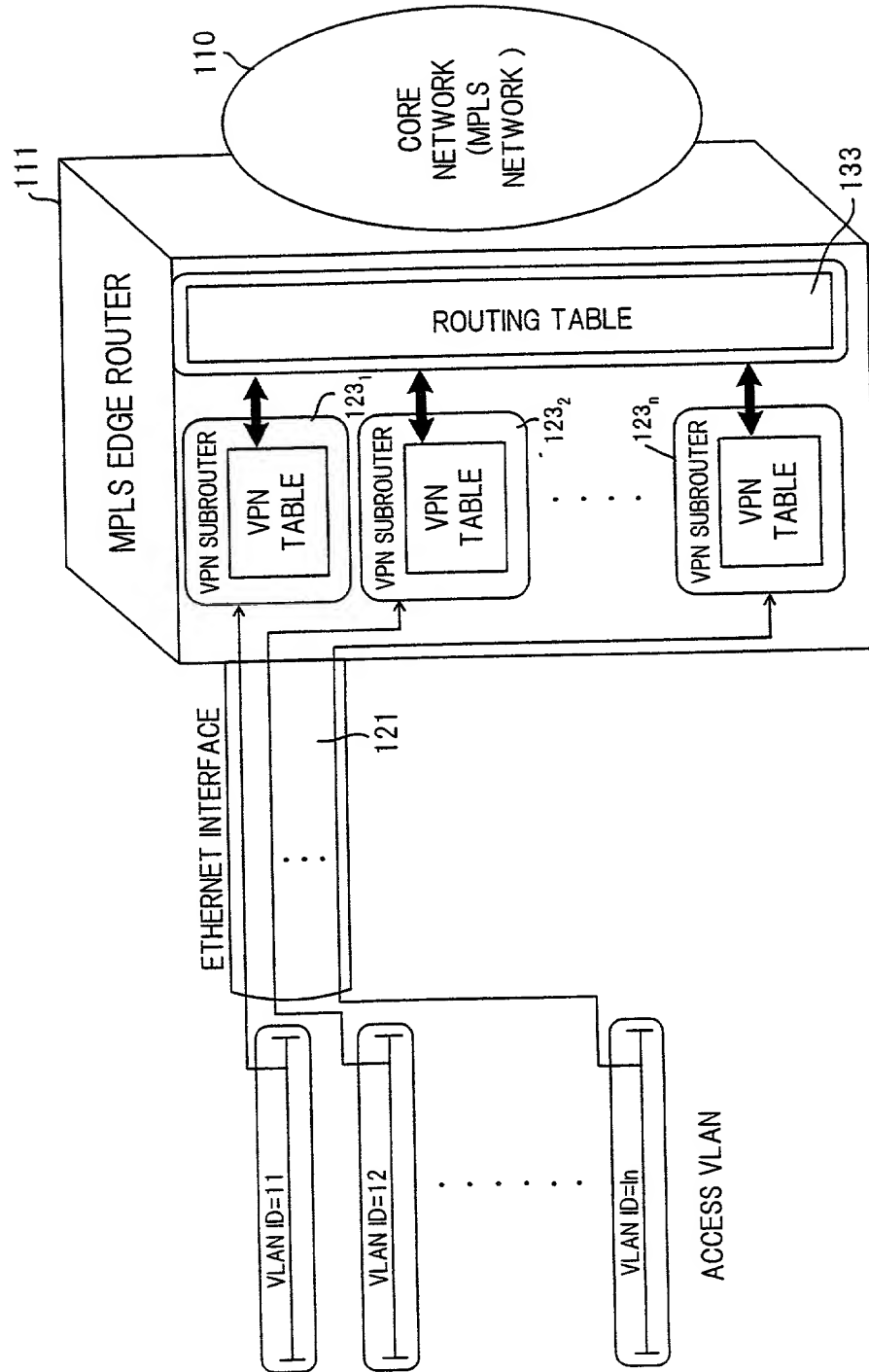


FIG. 6

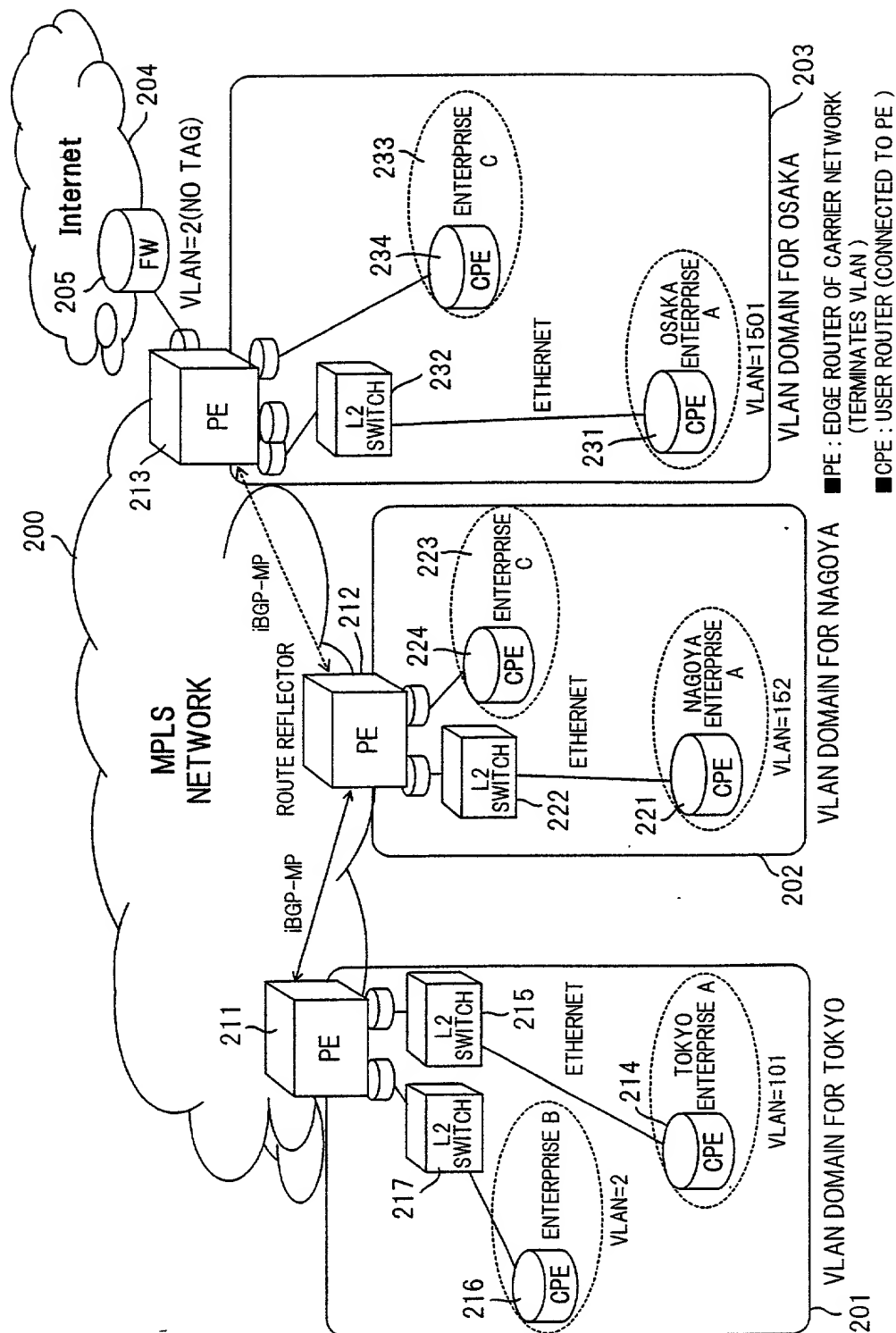


FIG. 7A

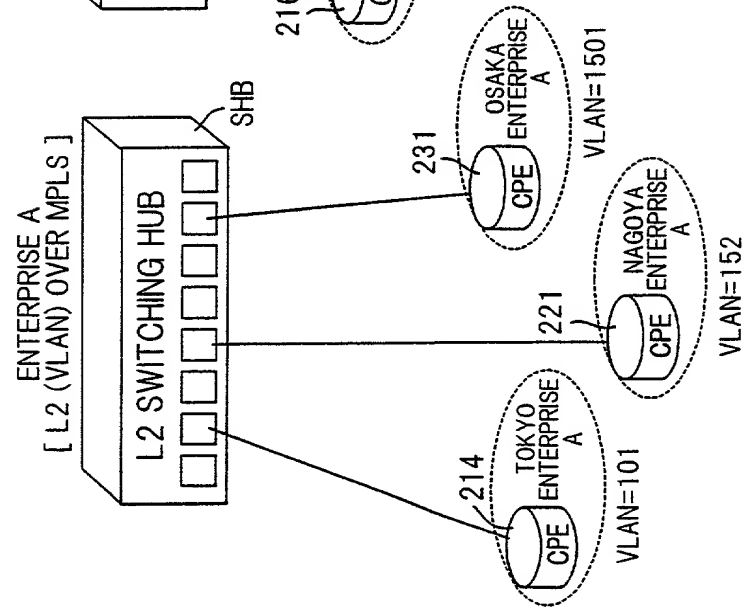


FIG. 7B

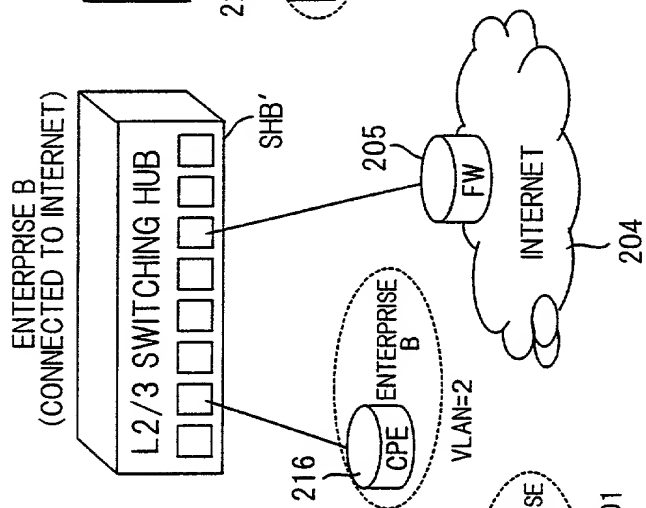


FIG. 7C

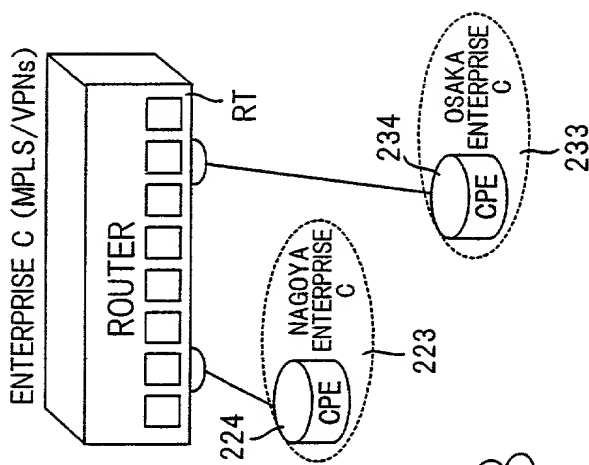


FIG. 8

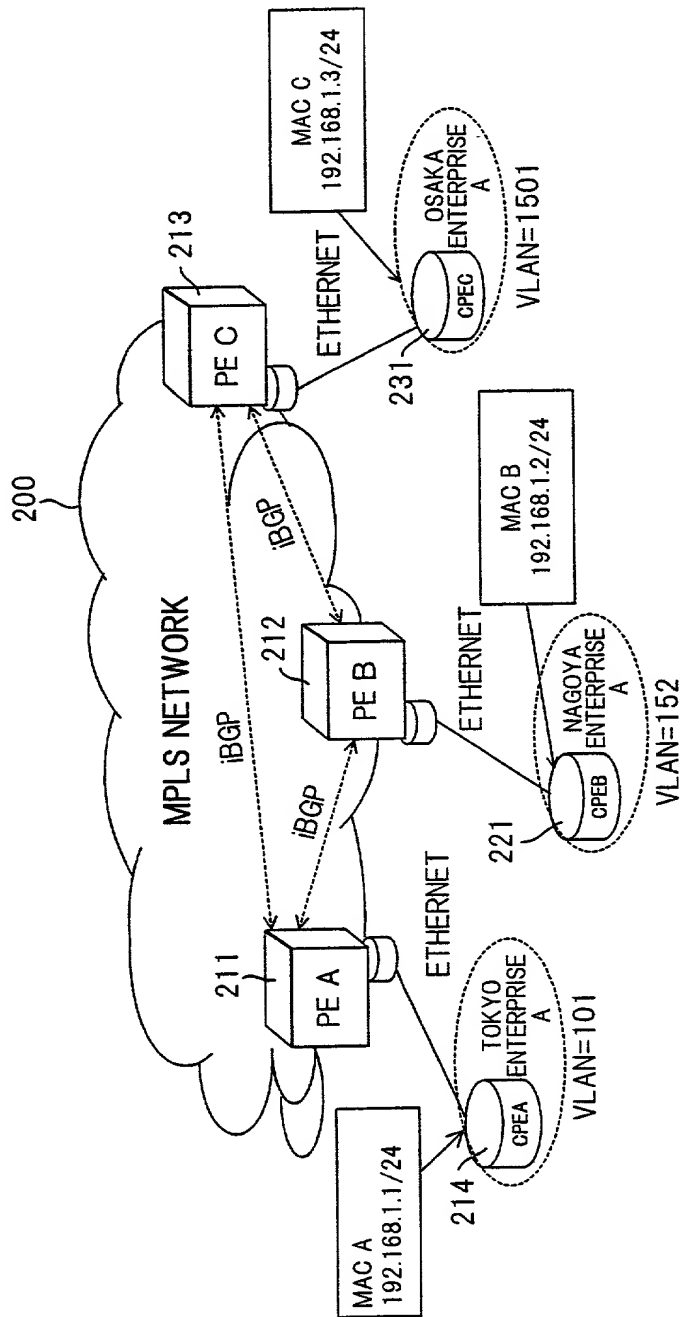


FIG. 9

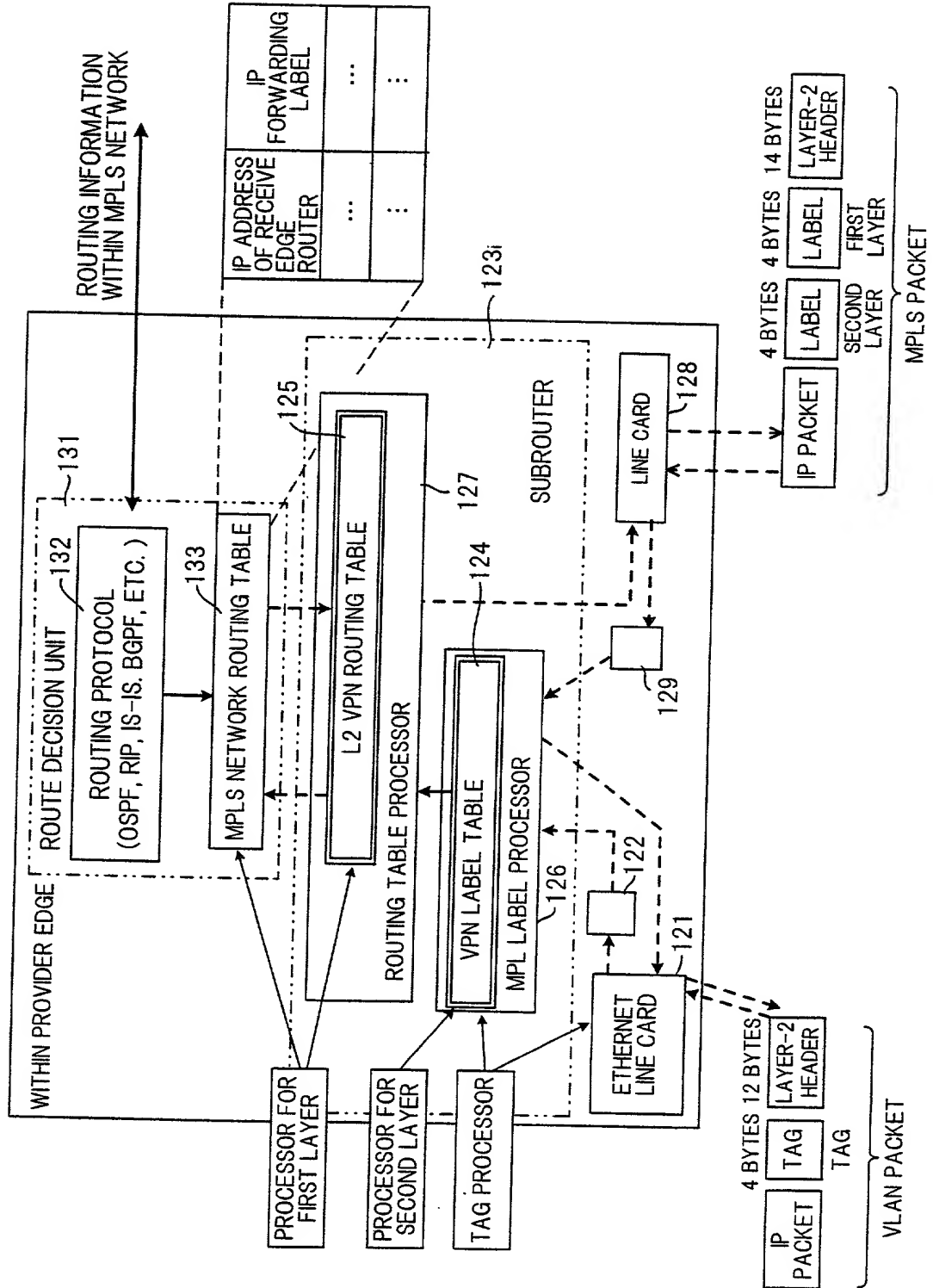
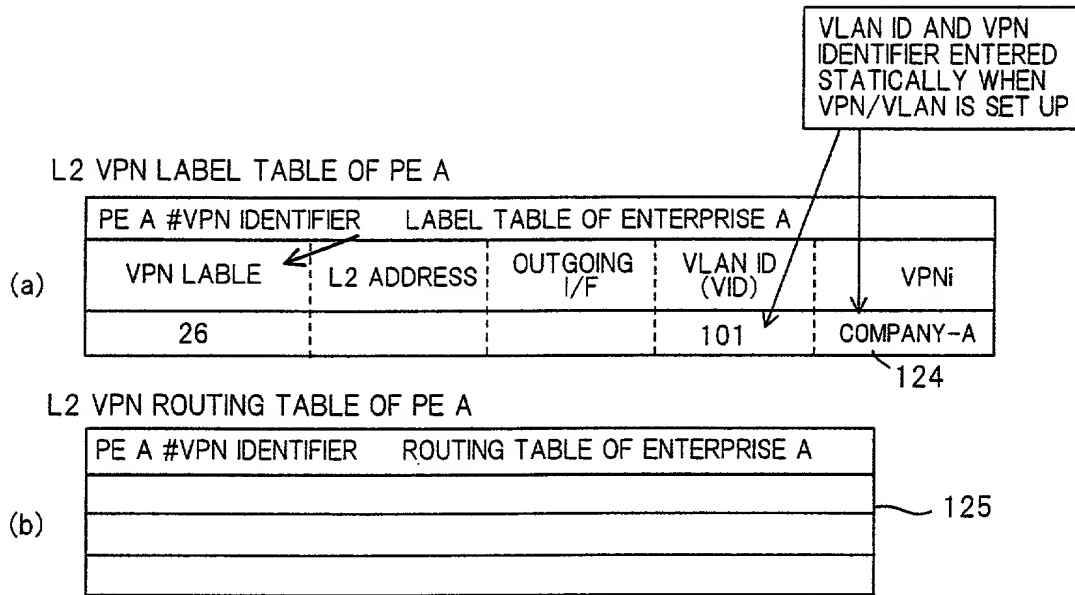
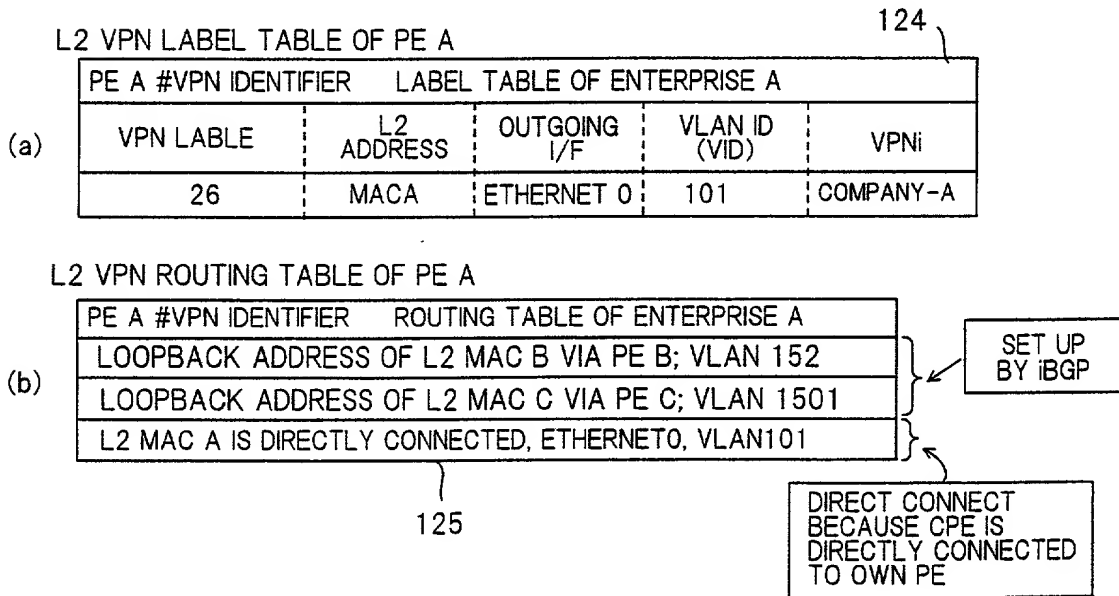


FIG. 10A**FIG. 10B**

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FIG. 11A

VPN TABLE OF ENTERPRISE A IN PE A

L2 VPN LABEL TABLE OF ENTERPRISE A				
VPN LABLE	OUTGOING I/F	MAC	VID	VPNi
26	ETHERNET	MAC A	101	COMPANY A
L2 VPN ROUTING TABLE OF ENTERPRISE A				
L2	MAC B	LOOPBACK ADDRESS OF PE B; VIAN 152		
L2	MAC C	LOOPBACK ADDRESS OF PE C; VLAN 1501		
L2	MAC A	DIRECTLY CONNECTED, ETHERNET, VLAN101		

FIG. 11B

VPN TABLE OF ENTERPRISE B IN PE B

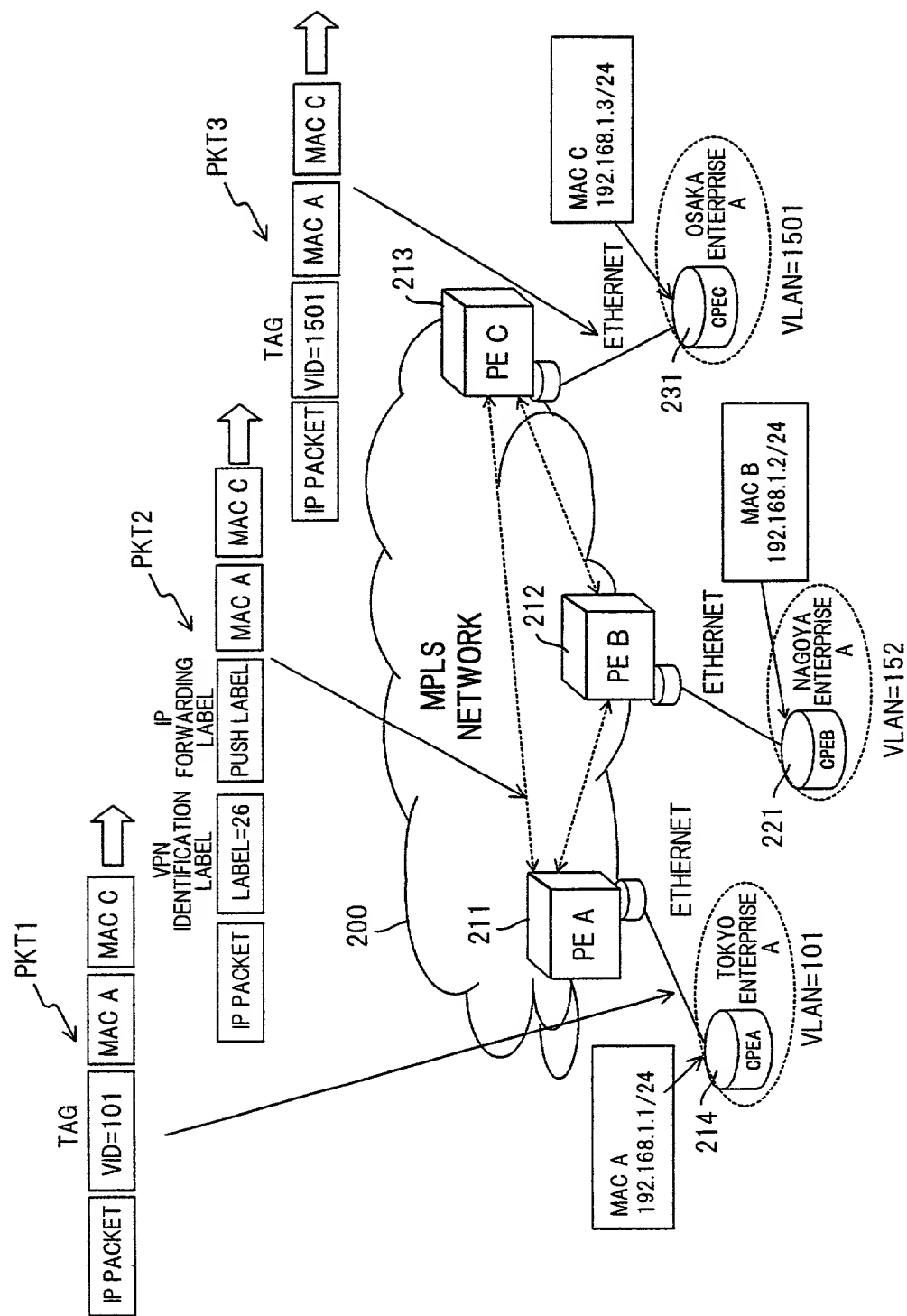
L2 VPN LABEL TABLE OF ENTERPRISE A				
VPN LABLE	OUTGOING I/F	MAC	VID	VPNi
26	ETHERNET	MAC B	152	COMPANY A
L2 VPN TABLE OF ENTERPRISE A				
L2	MAC B	DIRECTLY CONNECTED, ETHERNET, VLAN 152		
L2	MAC C	LOOPBACK ADDRESS OF PE C; VLAN 1501		
L2	MAC A	LOOPBACK ADDRESS OF PE A; VLAN101		

FIG. 11C

VPN TABLE OF ENTERPRISE C IN PE C

L2 VPN LABEL TABLE OF ENTERPRISE A				
VPN LABLE	OUTGOING I/F	MAC	VID	VPNi
26	ETHERNET	MAC C	1501	COMPANY A
L2 VPN LABEL TABLE OF ENTERPRISE A				
L2	MAC B	LOOPBACK ADDRESS OF PE B; VLAN152		
L2	MAC C	DIRECTLY CONNECTED, ETHERNET, VLAN1501		
L2	MAC A	LOOPBACK ADDRESS OF PE A; VLAN101		

FIG. 12



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FIG. 13

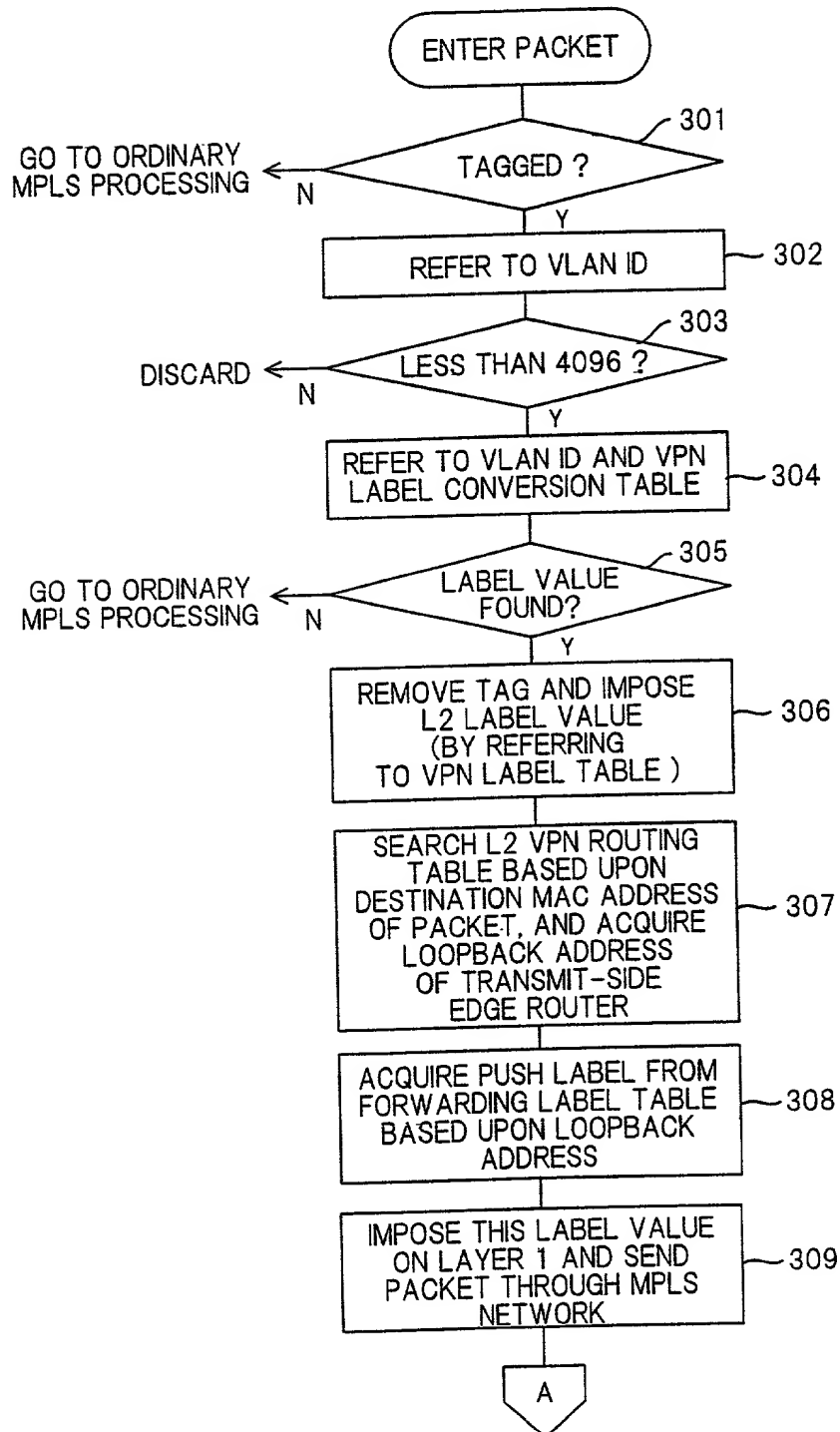


FIG. 14

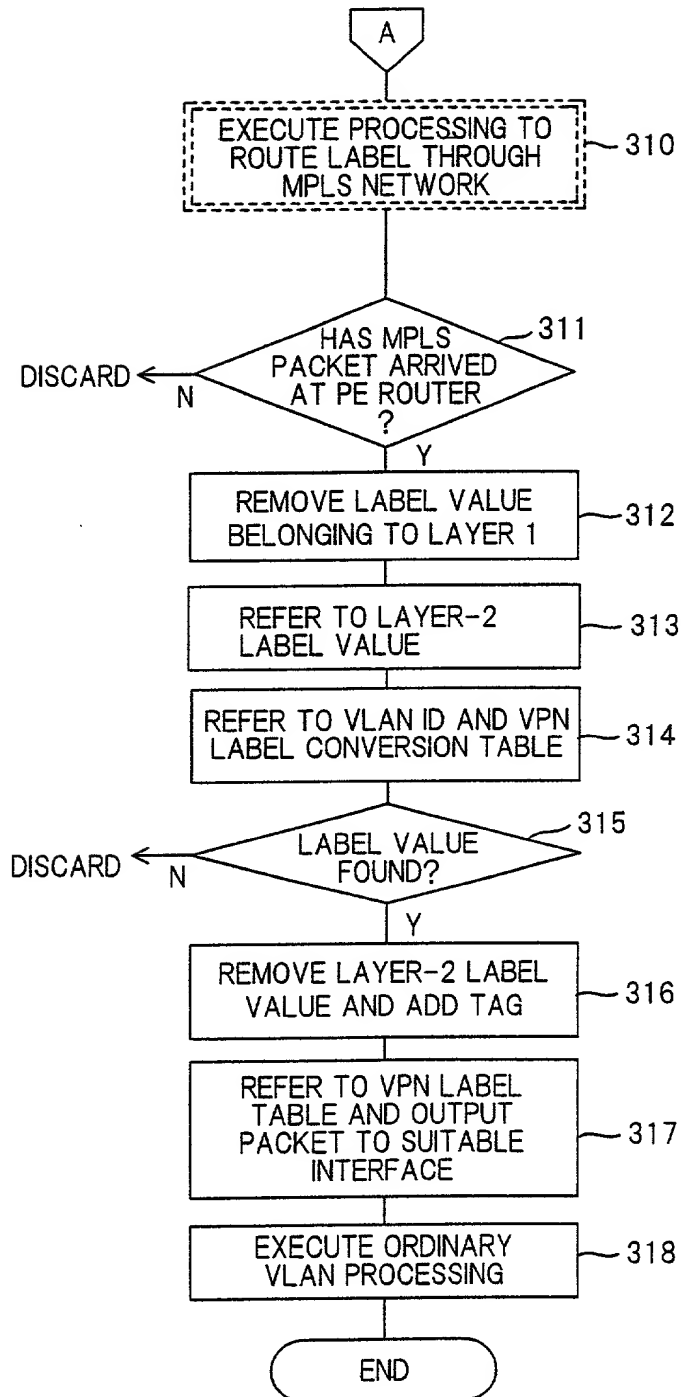


FIG. 15A

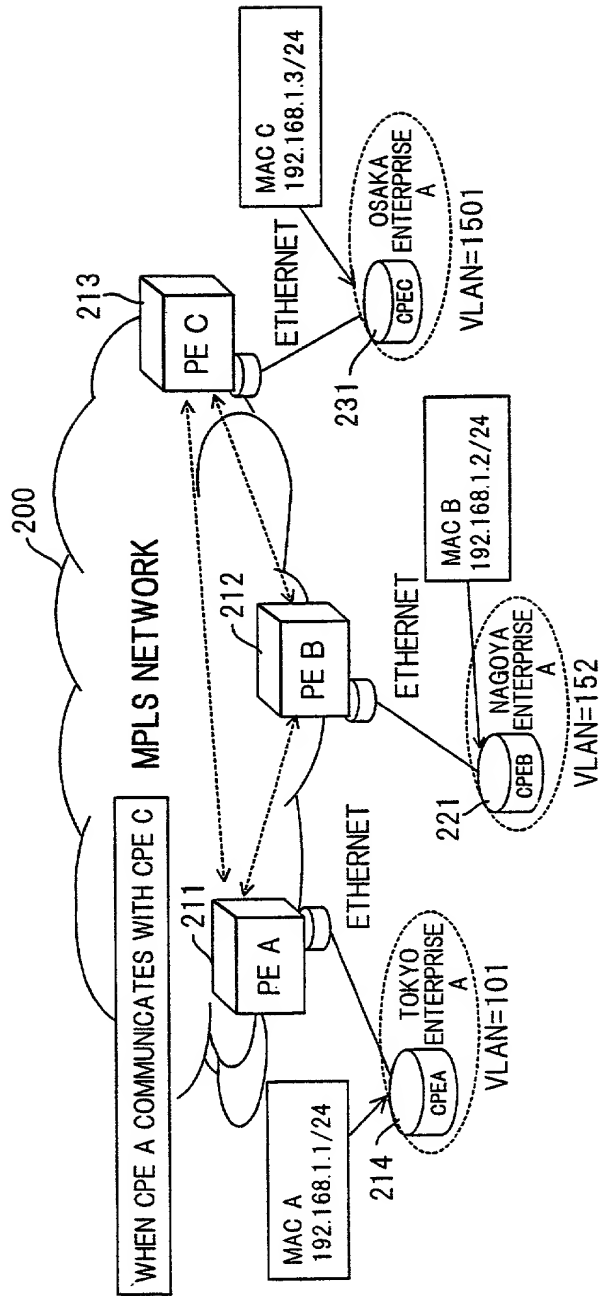


FIG. 15B

1.	BROADCAST ARP PACKET DIRECTED TO CPE C (192. 168. 1. 3) FROM CPE A
2.	IN CASE OF BROADCAST DIRECTED TO CPE C (192.168.1.3) FROM CPE A, CREATE COPY OF BROADCAST PACKET AT PE A AS NECESSARY AND SEND PACKET TO PE B, PE C
3.	SEND ARP-REPLY PACKET TO CPE A (192.168. 1. 1) FROM CPE C AUTOMATICALLY LEARN OR ENTER MAC ADDRESS OF EACH CPE IN L2 VPN LABEL TABLE, L2 VPN TABLE OF EACH PE

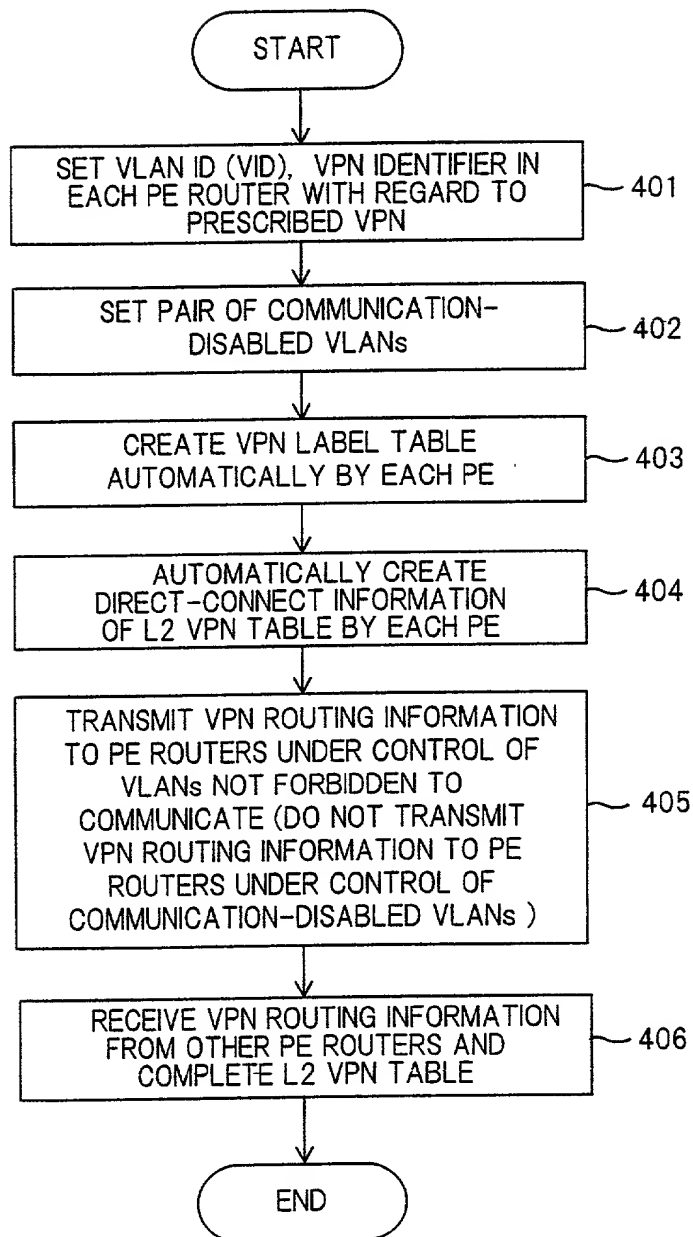
FIG. 16

FIG. 17A

6 BYTES MAC DA	6 BYTES MAC SA	4 BYTES TAG	2 BYTES TYPE	IP, TCP, DATA, ...
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USER PRIORITY

TYPE VALUE OF TAG PROTOCOL (8100 AT TAGGING TIME)	(3 BITS)	VLAN IDENTIFIER (VID)	LENGTH	RIF
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FIG. 17B

LABEL	EXP (3 BITS)	S	TTL
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6 BYTES MAC DA	6 BYTES MAC SA	2 BYTES TYPE	4 BYTES LABEL	IP, TCP, DATA, ...
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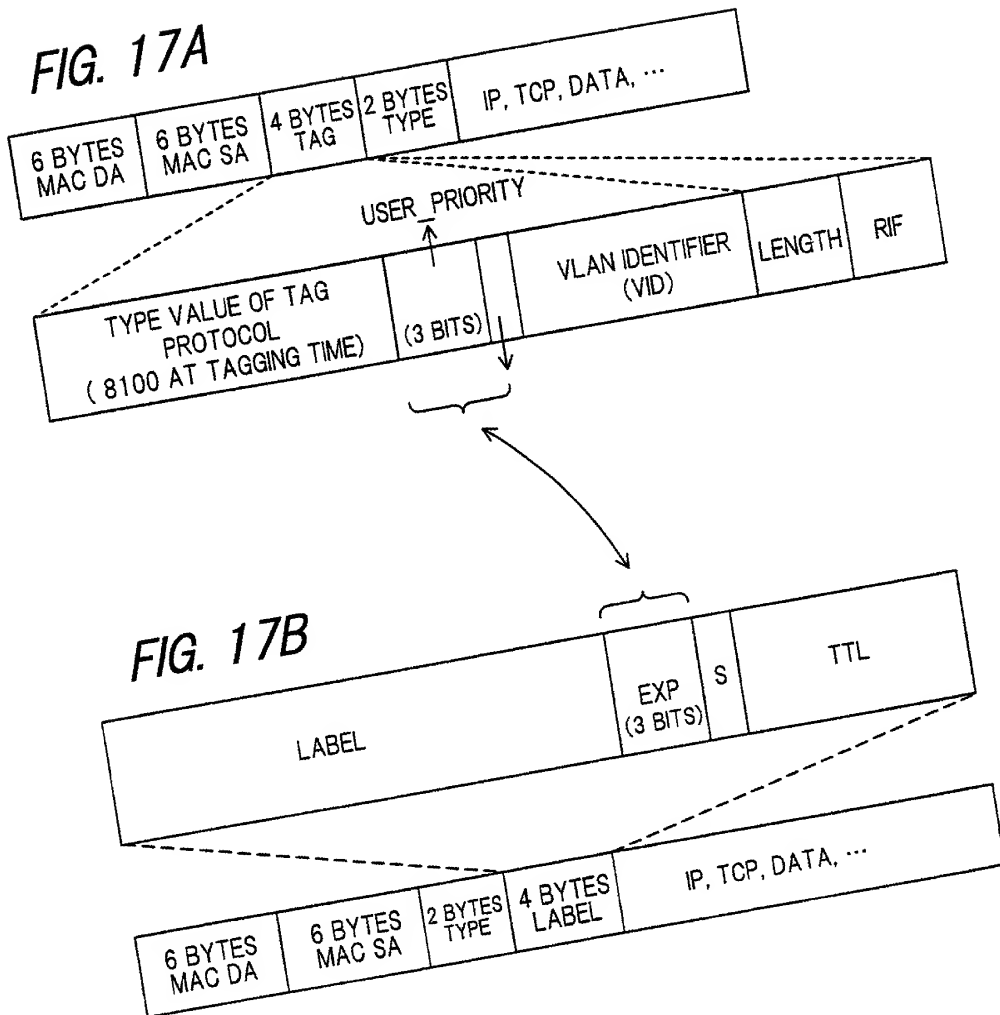


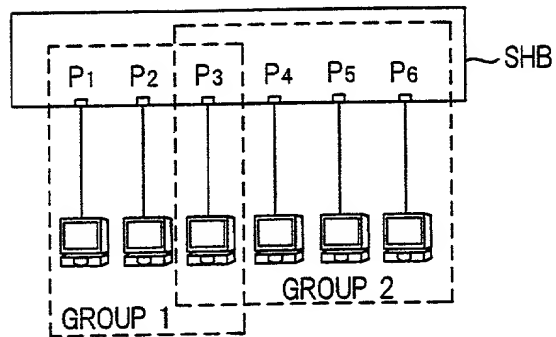
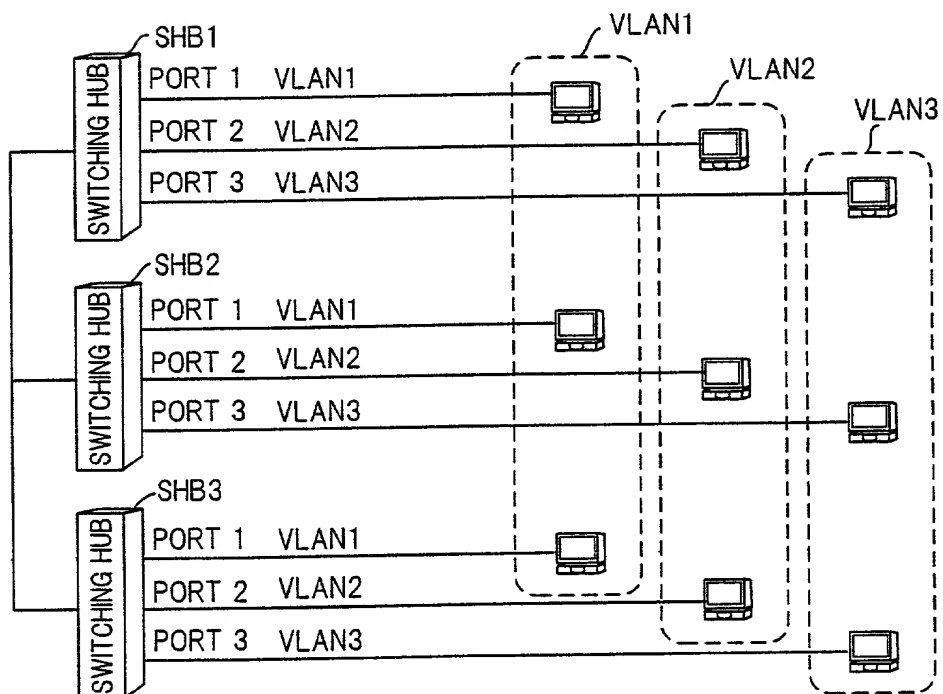
FIG. 18 PRIOR ART*FIG. 19 PRIOR ART*

FIG. 20 PRIOR ART

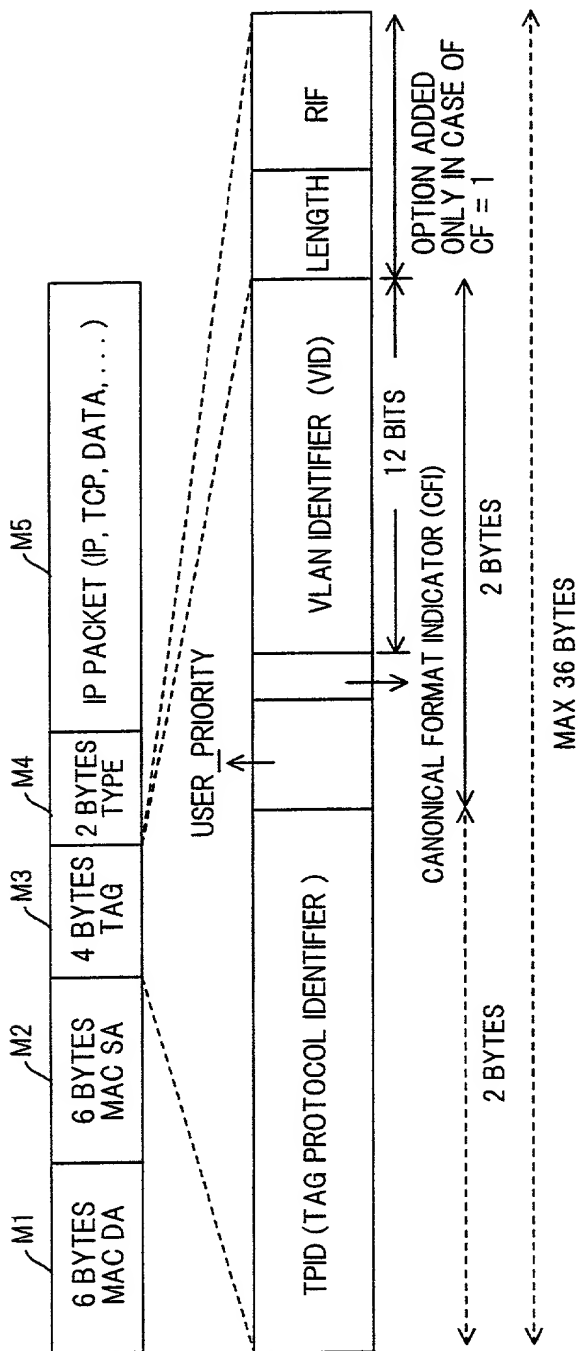


FIG. 21 PRIOR ART

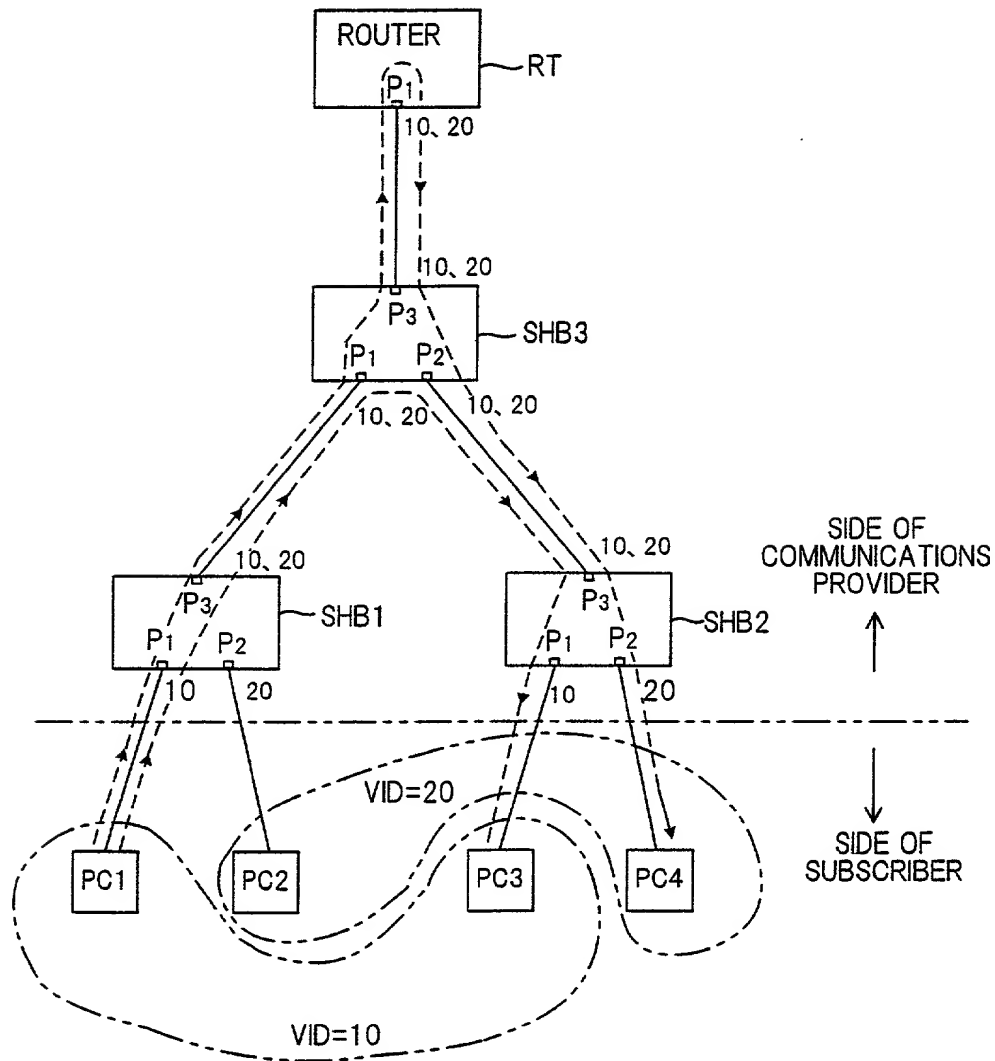


FIG. 22 PRIOR ART

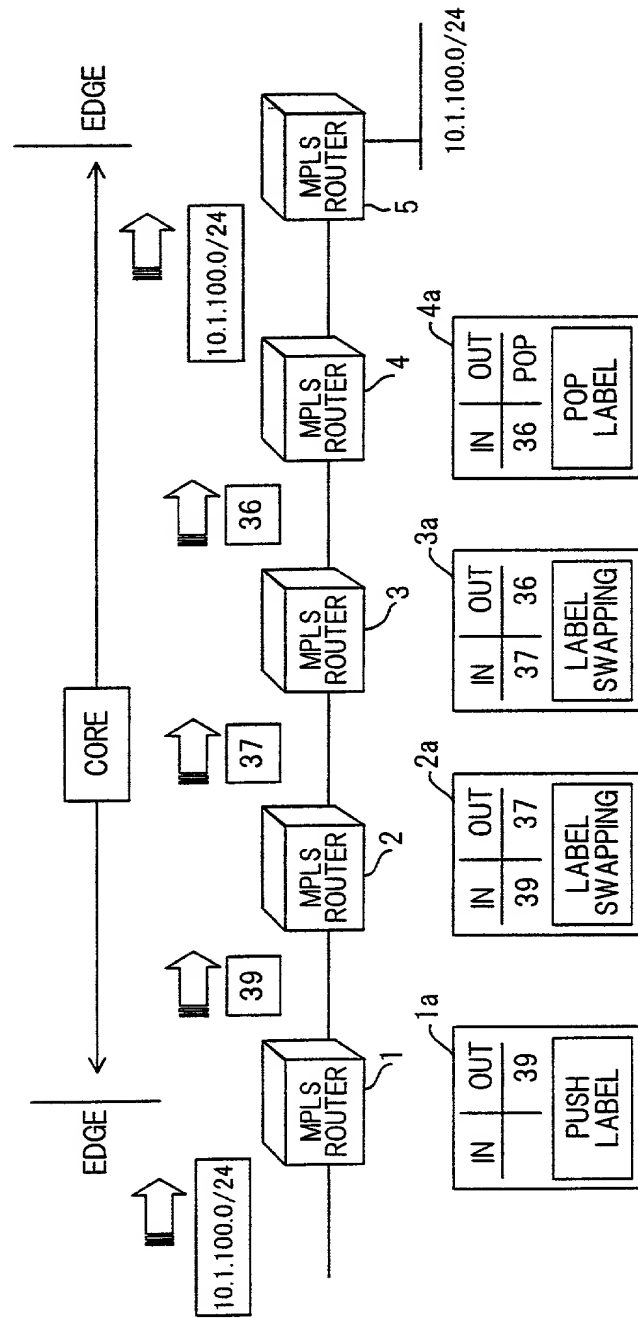


FIG. 23 PRIOR ART

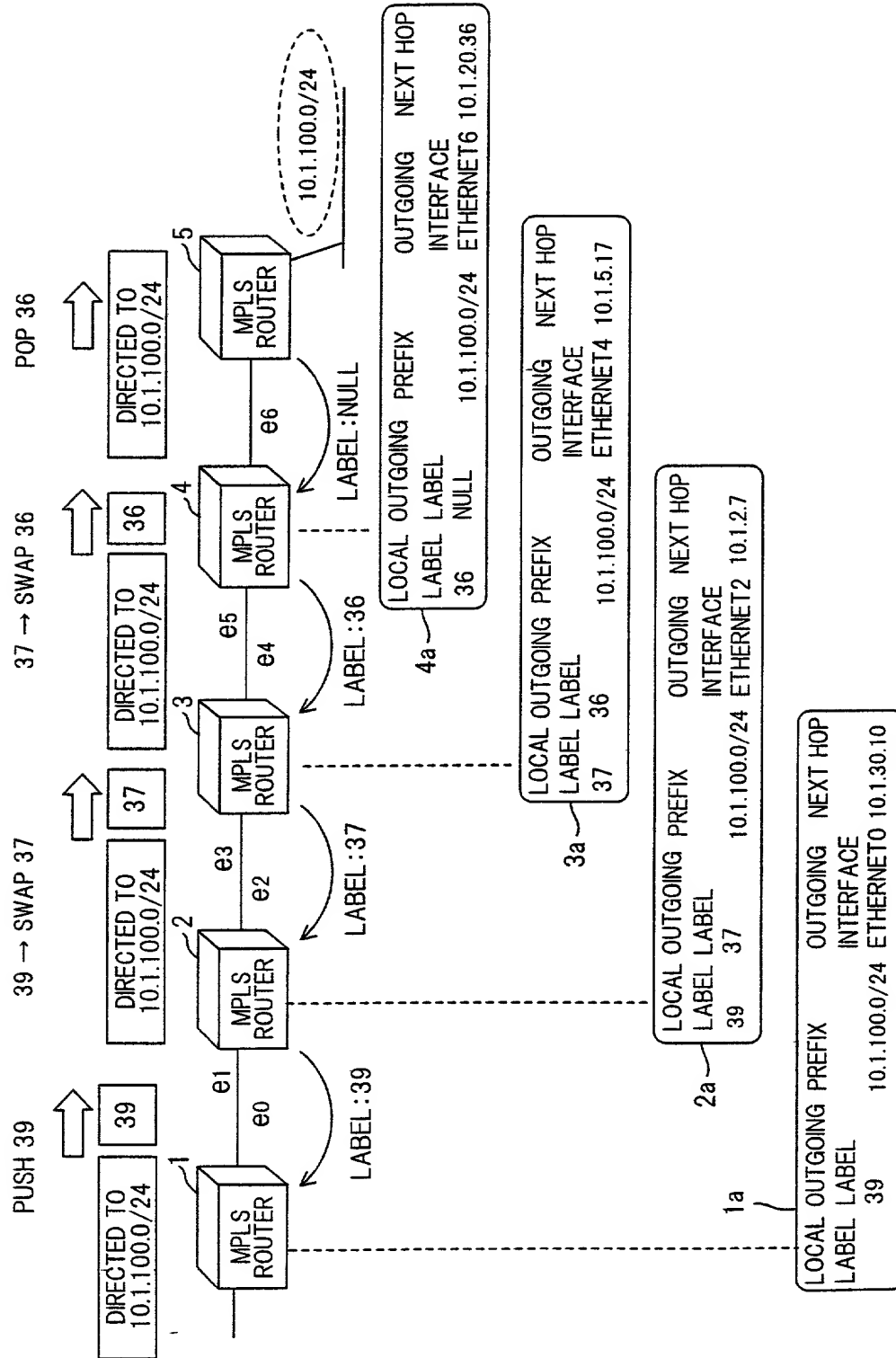


FIG. 24 PRIOR ART

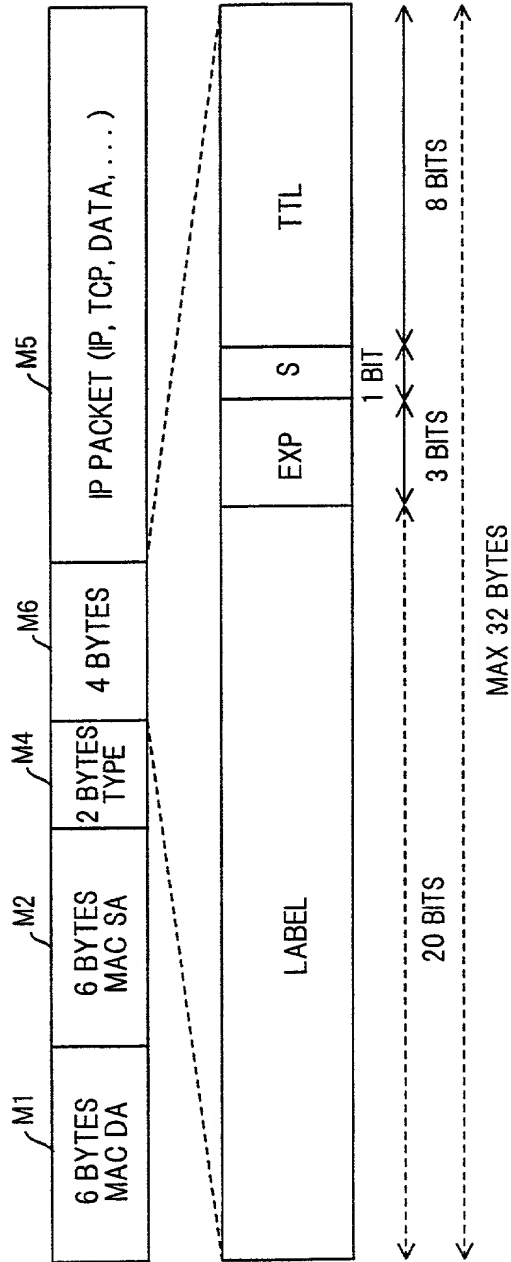


FIG. 25 PRIOR ART

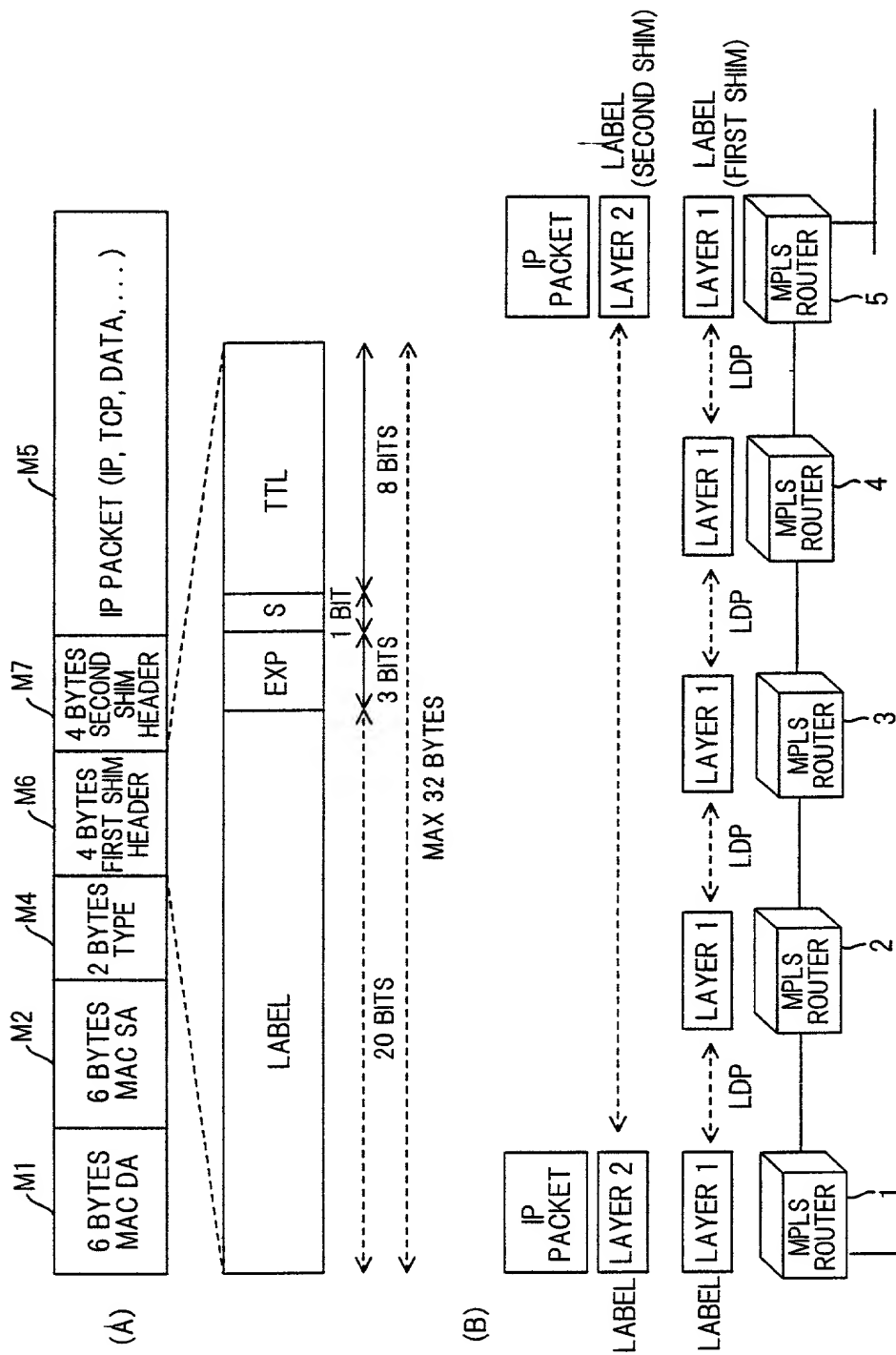


FIG. 26 PRIOR ART

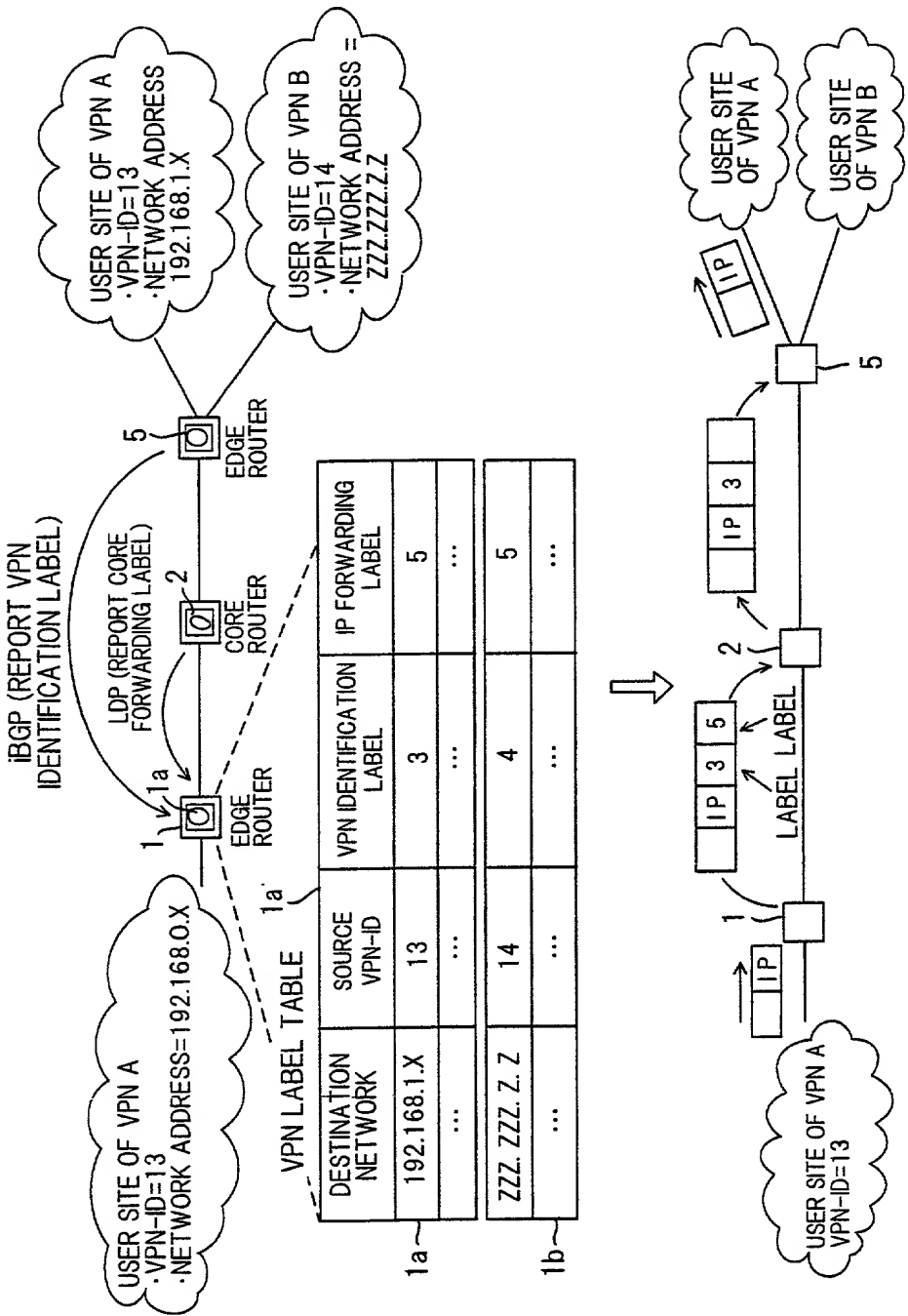


FIG. 27 PRIOR ART

